

Remarks

In view of the above amendments and the following remarks, reconsideration of the rejections and further examination are requested.

Claims 30, 31, 33, 36, 42 and 45 have been rejected under 35 U.S.C. §102(b) as being anticipated by Coen (US 3,176,086). Claims 30 and 46 have been rejected under 35 U.S.C. §102(b) as being anticipated by Mitobe (US 5,111,510). Claims 32, 37 and 38 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Coen. Claims 37, 39 and 41 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Coen in view of Stewart (US 6,373,957). Claims 37 and 39-41 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Coen in view of Sugawara (JP 53-121613) or Henricksen (US 3,991,286). Claims 43 and 44 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Coen in view of Knowles (US 2,295,483) or Cahill (US 5,940,522).

Claims 34 and 35 have been indicated as containing allowable subject matter. The Applicants would like to thank the Examiner for this indication of allowable subject matter.

Claim 30 has been amended so as to further distinguish the present invention from the references relied upon in the above-mentioned rejections. Further, claim 46 has been amended in light of the amendments to claim 30.

It is submitted that the above-mentioned rejections are no longer applicable to the claims for the following reasons.

Claim 30 is patentable over Coen and Mitobe, since claim 30 recites a loudspeaker having, in part, a frame having a plurality of clip sections; and a yoke having an expansion provided at an outer circumference thereof, wherein a plurality of slots are provided at an outer circumference of the expansion, the plurality of slots having positions on the expansion that are alignable with positions of the plurality of clip sections on the frame, and wherein the expansion and the plurality of clip sections are adapted to revolve with respect to each other to couple a magnetic circuit, including the yoke, and the frame. Coen and Mitobe fail to disclose or suggest the fame having the plurality of clip sections and the yoke having the expansion with the plurality of slots as recited in claim 30.

Coen discloses a speaker 10 having a speaker basket 20 connected to a magnetic housing 14. The magnetic housing 14 has an exterior shoulder 26 on which a flange 32 of the speaker basket 20 abuts against. The speaker basket 20 is connected to the magnetic housing 14 by the deformation of a lip 24 of the magnet housing 14. The lip 24 is deformed such that a number of deformations 60 and V-shaped grooves 62 are formed therein, whereby the flange 32 of the speaker basket 20 is held between the deformations 60 and the exterior shoulder 26. (See column 2, lines 3-69 and Figures 1-4).

In the rejection, the exterior shoulder 26 is indicated as corresponding to the claimed expansion of the magnetic circuit, and the combination of the lip 24, the deformations 60 and the V-shaped grooves 62 are indicated as corresponding to a slot. Further, the flange 32 is indicated as corresponding to a clip section. However, claim 30 now recites that the frame has a plurality of clip sections. It is clear from Figure 4 of Coen that only one continuous flange 32 is included on the speaker basket 20. Therefore, Coen fails to disclose or suggest the claimed plurality of clip sections.

Further, the rejection indicates that the combination of the lip 24, the deformations 60 and the V-shaped grooves 62 define slots as recited in claim 30. Regarding this, it is noted that the claimed slots are indicated as being provided at the outer circumference of the expansion. However, as is clearly visible from Figure 3 of Coen, the lip 24, the deformations 60 and the V-shaped grooves 62 are not at the outer circumference of the exterior shoulder 26, which is relied upon in the rejection as corresponding to the expansion. Instead, the lip 24, the deformations 60 and the V-shaped grooves 62 are located on an upper surface of the exterior shoulder 26 towards its inner circumference. Therefore, despite the rejection's indication otherwise, the lip 24, the deformations 60 and the V-shaped grooves 62 do not correspond to the claimed slots.

In addition, claim 30 now recites that the claimed slots have positions on the expansion that are alignable with positions of the plurality of clip sections on the frame. As discussed above, since the speaker basket 20 only includes the one continuous flange 32, it is apparent that Coen necessarily fails to disclose or suggest this feature of claim 30.

Finally, it is noted that claim 30 recites that the expansion and the plurality of clip sections are adapted to revolve with respect to each other to couple a magnetic circuit,

including the yoke, and the frame. In Coen, the lip 24 has the deformations 60 formed therein so as to press the flange 32 against the exterior shoulder 26, and “permanently secure” the speaker basket 20 to the magnetic housing 14. (See column 2, lines 46-54). As a result, it is apparent that the exterior shoulder 26 and the flange 32 are fixed together and not adapted to revolve with respect to each other. Therefore, Coen fails to disclose or suggest this feature of claim 30.

In light of the numerous differences between the present invention as recited in claim 30 and Coen, it is apparent that claim 30 is patentable over Coen.

Mitobe discloses a speaker including a frame 10 and a driver unit 30. The frame 10 includes a first piece 11 and a second piece 16. The driver unit 30 includes a center pole 31, a yoke 32, a magnet 33 and a top plate 34. The second piece 16 of the frame 10 includes a rim portion 19 that engages the yoke 32 and the peripheries of the magnet 33 and the top plate 34 such that the second piece 16 of the frame 10 and the driver unit 30 are integrally combined. (See column 2, line 40 – column 3, line 5; column 3, lines 21-40; and Figure 1).

In the rejection, it is indicated that the rim portion 19 of the second piece 16 of the frame 10 corresponds to a clip section and the yoke 32 corresponds to the claimed expansion. Further, it appears that the beveled lower surface of the yoke 32 is relied upon as corresponding to a slot. However, claim 30 now recites that the frame has a plurality of clip sections. It is clear from Figure 1 of Mitobe that the second piece 16 only includes one continuous rim portion 19. Therefore, Mitobe fails to disclose or suggest the claimed plurality of clip sections.

Further, the rejection indicates that the beveled lower surface of the yoke 32 corresponds to a slot as recited in claim 30. Regarding this, it is noted that claim 30 now recites a plurality of slots. However, as is clear from Figure 1 of Mitobe, the beveled lower surface of the yoke 32 is a single surface that is continuous around the diameter of the yoke 32. Therefore, the beveled lower surface does not correspond to the claimed slots.

In addition, claim 30 now recites that the claimed slots have positions on the expansion that are alignable with positions of the plurality of clip sections on the frame. As discussed above, since the yoke 32 only includes the one continuous beveled lower

surface, it is apparent that Mitobe necessarily fails to disclose or suggest this feature of claim 30.

Finally, it is noted that claim 30 recites that the expansion and the plurality of clip sections are adapted to revolve with respect to each other to couple a magnetic circuit, including the yoke, and the frame. However, in Mitobe, the second piece 16 of the frame 10 is disclosed as being “integrally combined” with the driver unit 30. (See column 3, lines 23-29). As a result, it is apparent that the yoke 32 of the driver unit 30, which is indicated as corresponding to the expansion, and the rim portion 19 of the second piece 16, which is indicated as corresponding to a claimed clip section, are fixed together and not adapted to revolve with respect to each other. Therefore, Mitobe fails to disclose or suggest this feature of claim 30.

Again, in light of the numerous differences between the present invention as recited in claim 30 and Mitobe, it is apparent that claim 30 is patentable over Mitobe.

As for (1) Stewart, (2) Sugawara and Henricksen, and (3) Knowles and Cahill, these references are relied upon as disclosing (1) a heat radiator for contacting a yoke, (2) a heat radiator for contacting a yoke and protruding into a space, and (3) holes in a coil bobbin that are lower than a level of a damper, respectively. However, none of these references discloses or suggests the above-discussed features of the present invention as recited in claim 30.


Because of the above-mentioned distinctions, it is believed clear that claims 30-46 are allowable over the references relied upon in the rejections. Furthermore, it is submitted that the distinctions are such that a person having ordinary skill in the art at the time of invention would not have been motivated to make any combination of the references of record in such a manner as to result, or otherwise render obvious, the present invention as recited in claims 30-46. Therefore, it is submitted that claims 30-46 are clearly allowable over the prior art of record.

In view of the above amendments and remarks, it is submitted that the present application is now in condition for allowance. The Examiner is invited to contact the undersigned by telephone if it is felt that there are issues remaining which must be resolved before allowance of the application.

Respectfully submitted,

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